

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0816-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 303M Bldg

RECEIVED
MAY 24 2006

EDMC



Cover Page

Page 1 of 7



Report Identification Number: 06I-0816-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303M0 J451
Payroll#: 73338

Sample Information

| Sample Date | Customer Sample Number | Laboratory Sample Number | Method | Analytical Batch Identification | Sample Matrix |
|-------------|------------------------|--------------------------|------------|---------------------------------|---------------|
| 22 Feb 2006 | J10TH0 | 06I06733 | NMAM 7300M | G061R00W | G WIPE |
| 22 Feb 2006 | J10TH1 | 06I06734 | NMAM 7300M | G061R00W | G WIPE |
| 22 Feb 2006 | J10TH2 | 06I06735 | NMAM 7300M | G061R00W | G WIPE |
| 22 Feb 2006 | J10TH3 | 06I06736 | NMAM 7300M | G061R00W | G WIPE |
| 22 Feb 2006 | J10TH4 | 06I06737 | NMAM 7300M | G061R00W | G WIPE |

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Lisa M. Reid
Title: Chemist
Date: February 27, 2006



Case Narrative Page

Page 2 of 7

Report Identification Number: 06I-0816-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303M0 J451
Payroll#: 73338

General Set Information: There are 5 samples in set 06I-0816-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

Replicate Analysis: One sample in this batch was replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None



Report Page

Page 4 of 7

Report Identification Number: 06I-0816-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303M0 J451
Payroll#: 73338

| Customer Sample Number | Laboratory Sample Number | Date Analyzed | Beryllium µg/sample | | Cadmium µg/sample | | Lead µg/sample | |
|--------------------------------|--------------------------|---------------|------------------------|---|----------------------|---|-------------------|---|
| J10TH0 | 06I06733 | 24 Feb 2006 | <0.02 | U | <0.07 | U | <2. | U |
| J10TH1 | 06I06734 | 24 Feb 2006 | <0.02 | U | <0.07 | U | <2. | U |
| J10TH2 | 06I06735 | 24 Feb 2006 | <0.02 | U | <0.07 | U | <2. | U |
| J10TH3 | 06I06736 | 24 Feb 2006 | <0.02 | U | <0.07 | U | <2. | U |
| J10TH4 | 06I06737 | 24 Feb 2006 | <0.02 | U | <0.07 | U | <2. | U |
| Limit of Detection (LOD) | | | 0.02 | | 0.07 | | 2. | |
| Required Detection Limit (RDL) | | | | | | | | |

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



QC Summary Page

Page 5 of 7

Report Identification Number: 06I-0816-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF: RC-001 / R303M0 J451

Payroll#: 73338

Batch ID: G061R00W

| QC Sample ID | QC Type | Analyte | Units | Result | Parent Result | Target | Percent Rec. | Relative Percent Diff. |
|--------------|---------|-----------|-----------|--------|---------------|--------|--------------|------------------------|
| BL-241832-1 | MB | Beryllium | µg/sample | ND | NA | NA | NA | NA |
| BL-241832-1 | MB | Cadmium | µg/sample | ND | NA | NA | NA | NA |
| BL-241832-1 | MB | Lead | µg/sample | ND | NA | NA | NA | NA |
| QC-241832-1 | LCS | Beryllium | µg/sample | 11.4 | NA | 10.0 | 114. | NA |
| QC-241832-1 | LCS | Cadmium | µg/sample | 32.0 | NA | 30.0 | 107. | NA |
| QC-241832-1 | LCS | Lead | µg/sample | 102. | NA | 100. | 102. | NA |
| QD-241832-1 | LCSD | Beryllium | µg/sample | 11.4 | 11.4 | 10.0 | 114. | 0.00 |
| QD-241832-1 | LCSD | Cadmium | µg/sample | 31.8 | 31.8 | 30.0 | 106. | 0.00 |
| QD-241832-1 | LCSD | Lead | µg/sample | 102. | 102. | 100. | 102. | 0.00 |

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$

$LD \text{ Relative Percent Diff.} = ((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$

06T-0816-01

| CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | | | | | | | | | | |
|--|--------|---|--|--|----------------------|---|-----------------------|-------------------------|------|------------|--------------|----|----|
| Collector: Chris Schilling | | Company Contact: Debbie A. Pitts and Henry W. Ruby | | Telephone No. 531-1229 | | Project Coordinator Joan H. Kessner | | Data Turnaround 24Hr | | | | | |
| Payroll #: 71333 | | Sampling Location: 300 Area-303M Bldg | | SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0451 | | SAP No. RC-001 | | | | | | | |
| Type of Sample: Ba, Cd, Pb | | Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | ANALYSIS METHOD (SPECIFIC): NIOSH 7300 Ba, Pb, Cd | | Method of Shipment Federal Express | | | | | | | |
| Shipped To: Data Chem, Salt Lake | | Other <input type="checkbox"/> | | | | Bill of Lading/Air Bill No. 8544 9435 5181 | | | | | | | |
| POSSIBLE SAMPLE HAZARD/REMARKS Ba, Cd, Pb | | | | | | | | | | | | | |
| Special Handling and/or Storage N/A | | | | | | | | | | | | | |
| SAMPLE ANALYSIS | | | | | | | | | | | | | |
| SAMPLE NO. | MATRIX | SAMPLE DATE | VOLUME (L) or Area (ft ²) | Comments | Asbestos Airborne | Lead Airborne | Beryllium Airborne | Beryllium Wipe | Mold | Cd Wipe | Lead Wipe | No | No |
| NOT NO | WI | 02-22-06 | N/A | Blank | | X | | | | X | X | | |
| NOT H1 | WI | 02-22-06 | N/A | Blank | | X | | | | X | X | | |
| NOT H2 | WI | 02-22-06 | 100 | N/A | | X | | | | X | X | | |
| NOT H3 | WI | 02-22-06 | 100 | N/A | | X | | | | X | X | | |
| NOT H4 | WI | 02-22-06 | 100 | N/A | | X | | | | X | X | | |

Page 1 of 2

WCH-SH-202 (08/29/2005)

Enter on line below the first Sample Number from Page One:

110740

| CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | |
|--|--|-----------------|-----------------|
| LABORATORY SECTION | SIGN / PRINT NAMES / USE MILITARY TIME | DATE / TIME | DATE / TIME |
| Chris Schilling | Lockout Cabinet Rm 16, 3746 Bldg | 02-23-06 / 1100 | 02-23-06 / 1100 |
| Isolated cabinet 689 3746 Bldg | R2 Steffen R.J. Steffen | 02-23-06 / 1440 | 02-23-06 / 1440 |
| Gottlieb Gailie Mathan | Fed Ex 34 | 02-23-06 / 1440 | 02-23-06 / 1440 |
| R2 Steffen R.J. Steffen | Julia Worrester | 02-23-06 / 1440 | 02-23-06 / 1440 |
| Seed Ex | 34 | 02-23-06 / 1440 | 02-23-06 / 1440 |
| Wade's 3 ju | 02-23-06 / 1440 | 02-23-06 / 1440 | 02-23-06 / 1440 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| LABORATORY SECTION | Received By: Julia Worrester | DATE / TIME | DATE / TIME |
| | | 02-23-06 / 1440 | 02-23-06 / 1440 |

REVIEWED BY:

DATE:

PRINT/SIGN NAME

WCH-SH-202 (04/29/2005)

Page 2 of 2

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

| Collector: Chris Schilling | | Company Contact Denise A. Pitts and Henry W. Ruby | | Telephone No. 531-1229 | | Project Coordinator Joan H. Kessner | | Data Turnaround 24Hr | | | | | |
|--|--------|---|--|---|----------------------|--|-----------------------|---|------|------------|--------------|----------------|----|
| Payroll #: 73338 | | Sampling Location 300 Area- 303M Bldg | | SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0J451 ANALYSIS METHOD (SPECIFIC): NIOSH 7300 Be, Pb, Cd | | SAF No. RC-001 | | Method of Shipment Federal Express Bill of Lading/Air Bill No. 8544 9435 5181 | | | | | |
| Type of Sample: Be, Cd, Pb | | | | | | | | | | | | | |
| Shipped To: Data Chem, Salt Lake | | Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other <u>N/A</u> | | | | | | | | | | | |
| POSSIBLE SAMPLE HAZARD/REMARKS Be, Cd, Pb | | MATRIX A - AIR WI - WIPE X - OTHER | | Preservation (i.e., cooling required, etc.) | | No | No | No | No | No | No | No | No |
| Special Handling and/or Storage N/A | | | | | | No | No | No | No | No | No | No | No |
| SAMPLE ANALYSIS | | | | | Asbestos Airborne | Lead Airborne | Beryllium Airborne | Beryllium Wipe | Mold | Cd Wipe | Lead Wipe | Cd Airborne | |
| SAMPLE NO. | MATRIX | SAMPLE DATE | VOLUME (L) or Area <u>100</u> cm ² | Comments | | | | | | | | | |
| J10TH0 | Wi | 02-22-06 | N/A | Blank | | X | | | | X | X | | |
| J10TH1 | Wi | 02-22-06 | N/A | Blank | | X | | | | X | X | | |
| J10TH2 | Wi | 02-22-06 | 100 | N/A | | X | | | | X | X | | |
| J10TH3 | Wi | 02-22-06 | 100 | N/A | | X | | | | X | X | | |
| J10TH4 | Wi | 02-22-06 | 100 | N/A | | X | | | | X | X | | |
| COPY | | | | | | | | | | | | | |
| FIELD SAMPLE COPY | | | | | | | | | | | | | |

Enter on line below the first Sample Number from Page One:

110THO

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

| | | | |
|---|---------------------------------------|---|--------------------------------------|
| Relinquished By/Stored: Chris Schilling | DATE / TIME 02-23-06 / 1100 | Received By/Stored: Locked Cabinet Rm 16, 3746 Bldg | DATE / TIME 02-23-06 / 1100 |
| Relinquished By/Stored: <i>locked cabinet bldg 3746 Rm #16</i> | DATE / TIME <i>02-23-06 / 1440</i> | Received By/Stored: <i>RZ Steffler R.J. Steffler</i> | DATE / TIME <i>2-23-06 / 1440</i> |
| Relinquished By/Stored: <i>Goldis Malhan</i> | DATE / TIME <i>WCH</i> | Received By/Stored: <i>Fed Ex</i> | DATE / TIME <i>2-23-06 / 1600</i> |
| Relinquished By/Stored: <i>RZ Steffler R.J. Steffler</i> | DATE / TIME <i>2-23-06 / 1600</i> | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| Relinquished By/Stored: | DATE / TIME | Received By/Stored: | DATE / TIME |
| LABORATORY SECTION | Received By | Title | DATE / TIME |

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME